

NOTES FROM 12.07.05 PROTON DRIVER MEETING - CIVIL

Attendees: Jim Kerby, Bill Foster, Dixon Bogert, Jerry Leibfritz, Maurice Ball, Bob Webber, Kamran Vaziri, Dave Johnson, Mike May, Rod Walton, Chuck Federowicz, John Santic, Paul Lahn, Elaine McCluskey

ITEMS DISCUSSED:

1. **Summary of current project status by Jim Kerby:**
 - a. On radar to have CD-0 soon and CD-1 review in June
 - b. ILC uncertainties about equipment and facilities make for uncertainties for PD
 - c. Horizontal klystron for 1300 Hz still having problems, vertical may have to be default
 - d. Project website via directorate is underway
2. **Process Cooling with Maurice (continued from 11/9/05 meeting):**
 - a. Maurice would prefer penetrations for LCW at 540 areas to correspond to pump room locations
 - i. Flexibility for ultimate machine
 - ii. Flexibility for maintenance/shutdown of equipment during operations
 - b. Abort will be big flow draw. This location will have RAW cooling water in separate loop
 - c. Can be "rough" for warm area of linac
 - d. Must be "more precise" for cavity cooling – separate from other system, needs reliability, probably provided from 45 deg water
 - e. Heat would be evenly distributed throughout linac in superconducting area
 - f. Question of timing for initial commissioning
 - i. Concern at MI microbe problem if transfer line is built last – have learned from past lessons, and would use UV filtration or something else to prevent this
 - g. Cooling in transfer line – probably very small demand with exception of RF station @ Debuncher, blackbody vacuum pipe
 - h. Injection absorber – don't know specs for this heat load yet. MI ponds might be too taxed and may need to add cooling capacity to MI. Could possibly use pump room in MI8 that is now empty.
 - i. Need to see how penetration pipes enter tunnel – could bury pipes directly, no sleeve, which would eliminate radiation issues – use SS sch 40 pipe A321 or A304 coated for direct bury
 - j. Asked Maurice to confirm concept pump and pipe sizes in rooms, tunnels, and galleries for room sizes. Noted that MI52 is good size visually with 3 pumps & HX
 - k. Need to think through cooling of waveguides and could you use LCW down these both for cooling and just to transport to tunnel. Would do at each RF station, and not just at 540 building then.
3. **Need to plan for 2 ion sources and 2 RFQs**
4. **Update on beamline layout:**
 - a. Dave Johnson is looking at injection scheme: absorber & MI10
 - b. Will get info to Chuck in next couple of days
 - c. Will be agenda item on 12/21
5. **Planning for future experiments in this facility:**
 - a. Injection @ 570' from RFQ
 - b. Put stub past road for future expansion under gallery

Actions:

- Dave Johnson to get info to Chuck on latest injection area layout
- Maurice will review pumps and piping sizes and come to a meeting in January with information.
- Maurice will try to get LCW SNS design info from Mark Champion at SNS

Next meeting scheduled for 12/21/05 at 9:30 in WH5NE